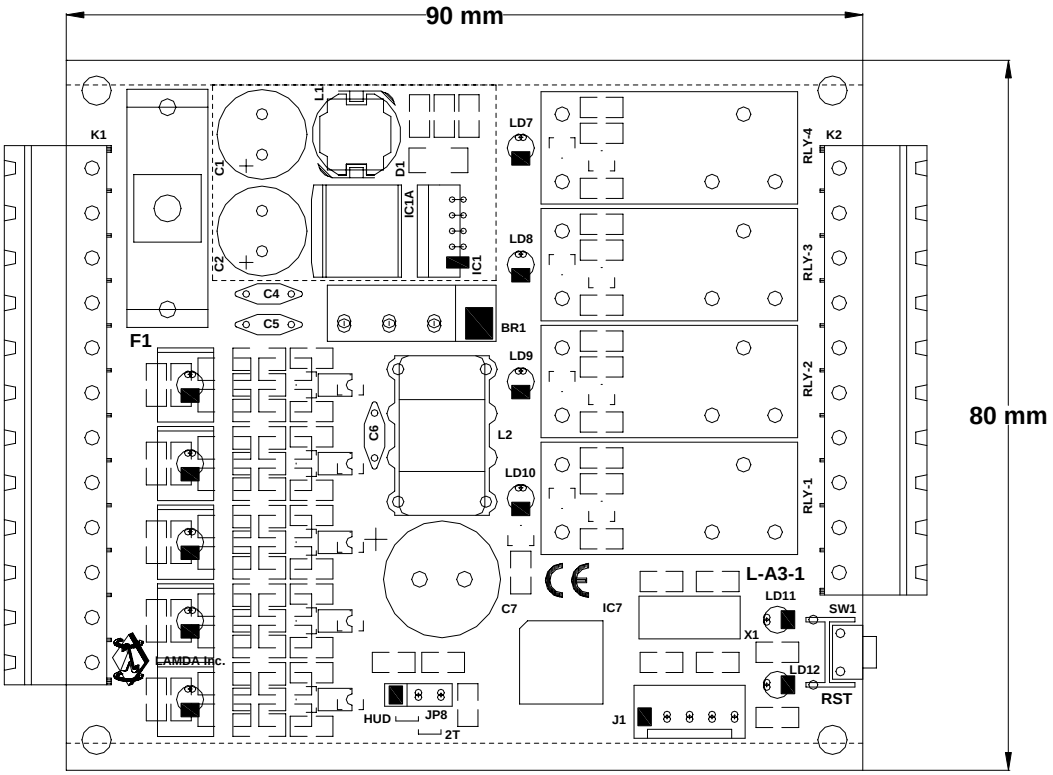
EN 81.1-2/A3 COMPLIANCE BOARD

L-A3-1 V1



USER'S MANUAL & INSTALLATION GUIDE

Copyright

© 2011 Lamda Electronics. All Rights Reserved.
This document may not be reproduced, electronically or mechanically, in whole or in part, without written permission from Lamda Electronics.

Warning and Disclaimer

Although every effort has been made to make this document as complete and accurate as possible, Lamda Electronics and the document authors, publishers, distributors, and representatives have neither liability nor responsibility for any loss or damage arising from information contained in this document or from informational errors or omissions. Information contained in this document shall not be deemed to constitute a commitment to provide service, equipment, or software by Lamda Electronics or the document authors, publishers, distributors, or representatives.

Limited Warranty

Lamda Electronics (manufacturer) warrants its products for a period of 24 months from the date of shipment from its factory to be free from defects in workmanship and materials. Any defect appearing more than 24 months from the date of shipment from the factory shall be deemed to be due to ordinary wear and tear. Manufacturer, however, assumes no risk or liability for results of the use of the products purchased from it, including, but without limiting the generality of the forgoing: (1) The use in combination with any electrical or electronic components, circuits, systems, assemblies or any other material or equipment (2) Unsuitability of this product for use in any circuit, assembly or environment. Purchasers' rights under this warranty shall consist solely of requiring the manufacturer to repair, or in manufacturer's sole discretion, replace free of charge, F.O.B. factory, any defective items received at said factory within the said 24 months and determined by manufacturer to be defective. The giving of or failure to give any advice or recommendation by manufacturer shall not constitute any warranty by or impose any liability upon the manufacturer. This warranty constitutes the sole and exclusive remedy of the purchaser and the exclusive liability of the manufacturer, AND IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, OR STATUTORY AS TO MERCHANTABILITY, FITNESS, FOR PURPOSE SOLD, DESCRIPTION, QUALITY PRODUCTIVENESS OR ANY OTHER MATTER. In no event will the manufacturer be liable for special or consequential damages or for delay in performance of this warranty.

Products that are not manufactured by LAMDA ELECTRONICS are not covered under the above warranty terms. LAMDA ELECTRONICS, however, extends the same warranty terms that the original manufacturer of such equipment provide, with their product (refer to the warranty terms for such products in their respective manual).

Table of contents

Table of contents 4
SAFETY PRECAUTIONS 5
Information on Safety 5
Personnel's Safety Precautions 5
Product's Safety Precautions 5
Symbols and Safety terms 5
Technical Characteristics 6
Inputs 7
Outputs 7
Connection Diagrams 8
Hydraulic Lift Connection Diagram 8
Traction Lift Connection Diagram 9
Tables – Figures Catalogue 10
Revision history 10

SAFETY PRECAUTIONS

Information on Safety

Please, read this manual carefully, before you proceed to the installation of the Control Cabinet, the cabling and the regular inspection of the cabinet. Keep this manual in a safe place and available to all installation and engineering personnel during the operation of the lift control cabinet.

The product that is described in this manual can be adjusted so that it can comply with the international norms and EE derivatives. LAMDA ELECTRONICS shall take no responsibility if the installation company does not adjust the product according to the current laws which are effective in the country which the installation process is taking place.

Personnel's Safety Precautions

Do not touch any of the electric, electrical or electronic part of the system which is under voltage.

Before you start operating the lift control cabinet or a part of it, be sure that there are no people close to you that could be hurt by the lift's move or any part of it. All safety components should be checked for their proper functionality. In any case, the lift should be in the inspection position.

Product's Safety Precautions

- Do not plug or unplug electronic boards or electronic components under voltage.
- Do not use a megometer when the electronic boards (PCBs) are plugged in. Megometers operate under high voltage and can easily destroy the PCB's semiconductors.
- Do not force the terminal blocks while you install them. They are designed for easy use and installation. If you cannot install them easily, it's probably because either you try to install them up-side-down or they are not aligned.
- Do not install the product near heating sources, vibrating sources or sources of high humidity.
- Check out and be sure about the grounding quality. All groundings should have star type connections. Groundings of bad quality can cause interference in the proper operation of the system.
- Use proper material for packaging the entire product or parts of it.

Symbols and Safety terms

The symbols below might appear either on the product or in the installation manual.

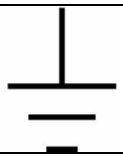
			
DANGER HIGH VOLTAGE	ATTENTION	NOTE	GROUNDING

Table 1

Technical Characteristics

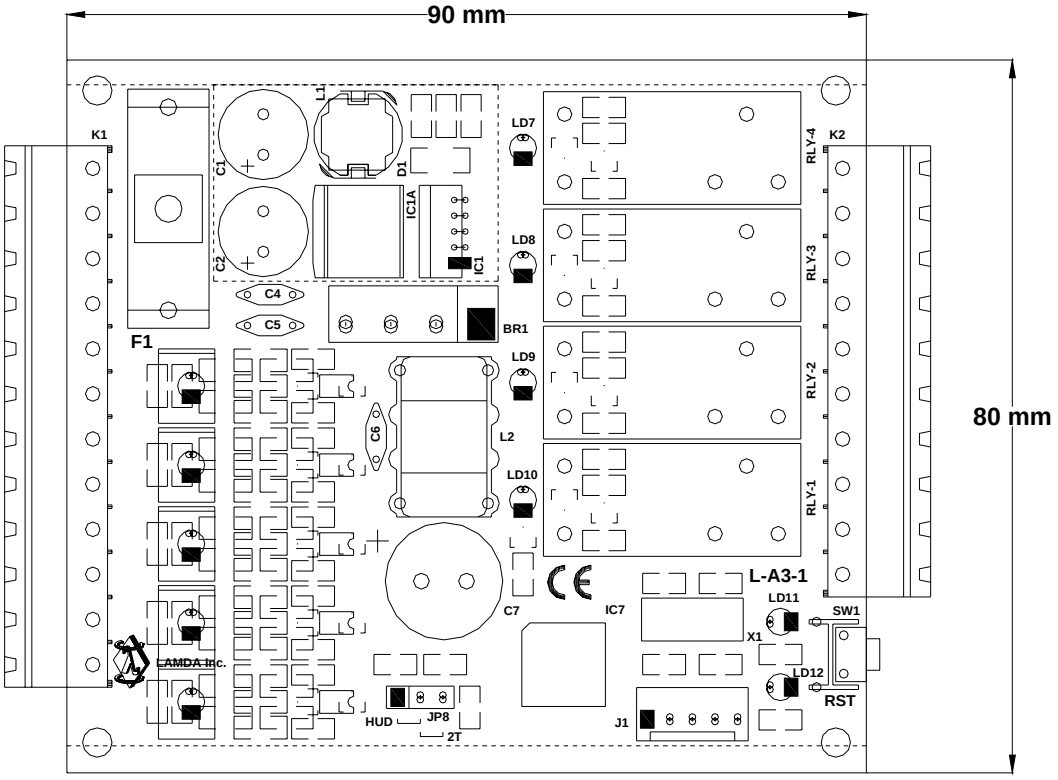


Figure 1

The board dimensions are: 9X8 cm. The board has been designed with four (4) holes near the edges for its installation using M3 spacers.

	Power Supply Units	Terminal Blocks	Operating Voltage	Operating Current	Comments
	CPU	+24VDC GND	24VDC	150mA	-
Inputs	Controller Signals	IN1~/+ - IN1~/- IN2~/+ - IN2~/- IN3~/+ - IN3~/- IN4~/+ - IN4~/- IN5~/+ - IN5~/-	12 – 115 VDC / VAC	1.5mA (24VDC)	Common or ground 12 – 115 VDC / VAC (depending on the voltage used)
Outputs	RLY-1 ~ 4	RLY-1 COM - RLY-1 NC RLY-2 COM - RLY-2 NC RLY-3 COM- RLY-3 NC- RLY-3 NO RLY-4 COM - RLY-4 NO	230V AC/DC (220-250VAC/DC)	12A / 250VAC	Power Relays

Table 2

Inputs

The Lamda A3 Compliance Board inputs are activated with signals of voltage 12 – 115 VDC / VAC. A description of the input block terminals is given in the following table.

Inputs	Operation
IN1~/+ - IN1~/-	Input from the safety circuit just before the landing doors
IN2~/+ - IN2~/-	Input from the safety circuit just after the landing doors
IN3~/+ - IN3~/-	Intended Car Movement Signal (Given by the Controller)
IN4~/+ - IN4~/-	Direction Signal (Up or Down), (Given by the controller)
IN5~/+ - IN5~/-	Zone Signal. Typically coming from a magnetic switch.

Table 3

Outputs

The board's outputs are dry relay contacts. The description of their operation is given in the table below.

Outputs	Operation
RLY-1	The normally closed contact (N.C.) of this relay is placed in-between the safety circuit. Ideally just before the final limit switches. When an Unintended Car Movement (UCM) is detected the relay will open the safety circuit.
RLY-2	The normally closed contact (N.C.) of this relay is placed in-between the signal that activates the motor power relay. In the case of a traction lift it is placed in-between the base block of the VVVF device. When an Unintended Car Movement (UCM) is detected, while moving upwards, the relay will be activated.
RLY-3	This relay haw two contacts. One is Normally Open (NO) and one is Normally Closed (NC). The NO contact is used in the case of a Hydraulic lift and activates the A3 valve coil. The NC contact is used in the case of a Traction lift and its purpose is to block the brake signal.
RLY-4	The normally open contact of this relay activates the overspeed governor.

Table 4

Connection Diagrams

Hydraulic Lift Connection Diagram

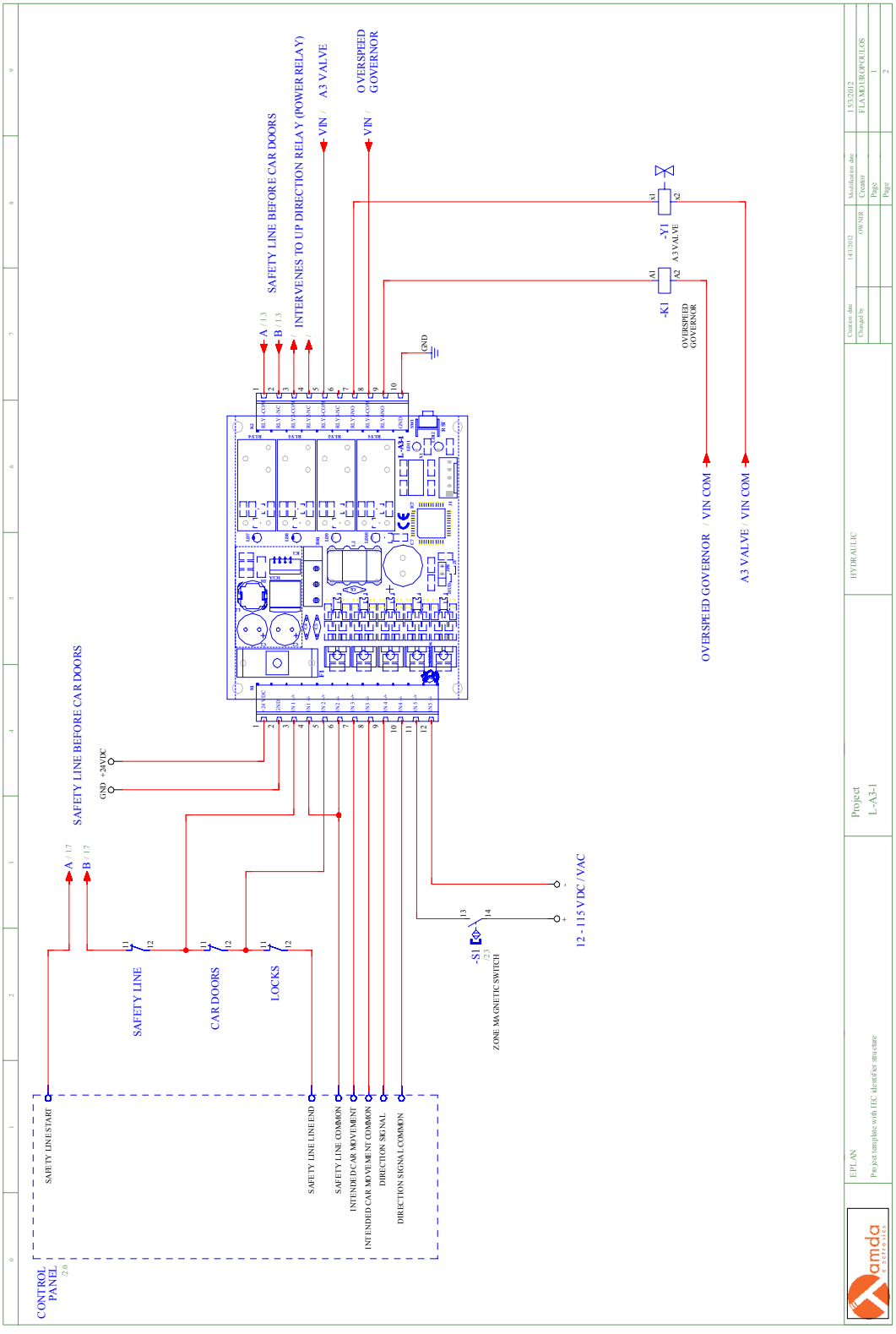


Figure 2

Traction Lift Connection Diagram

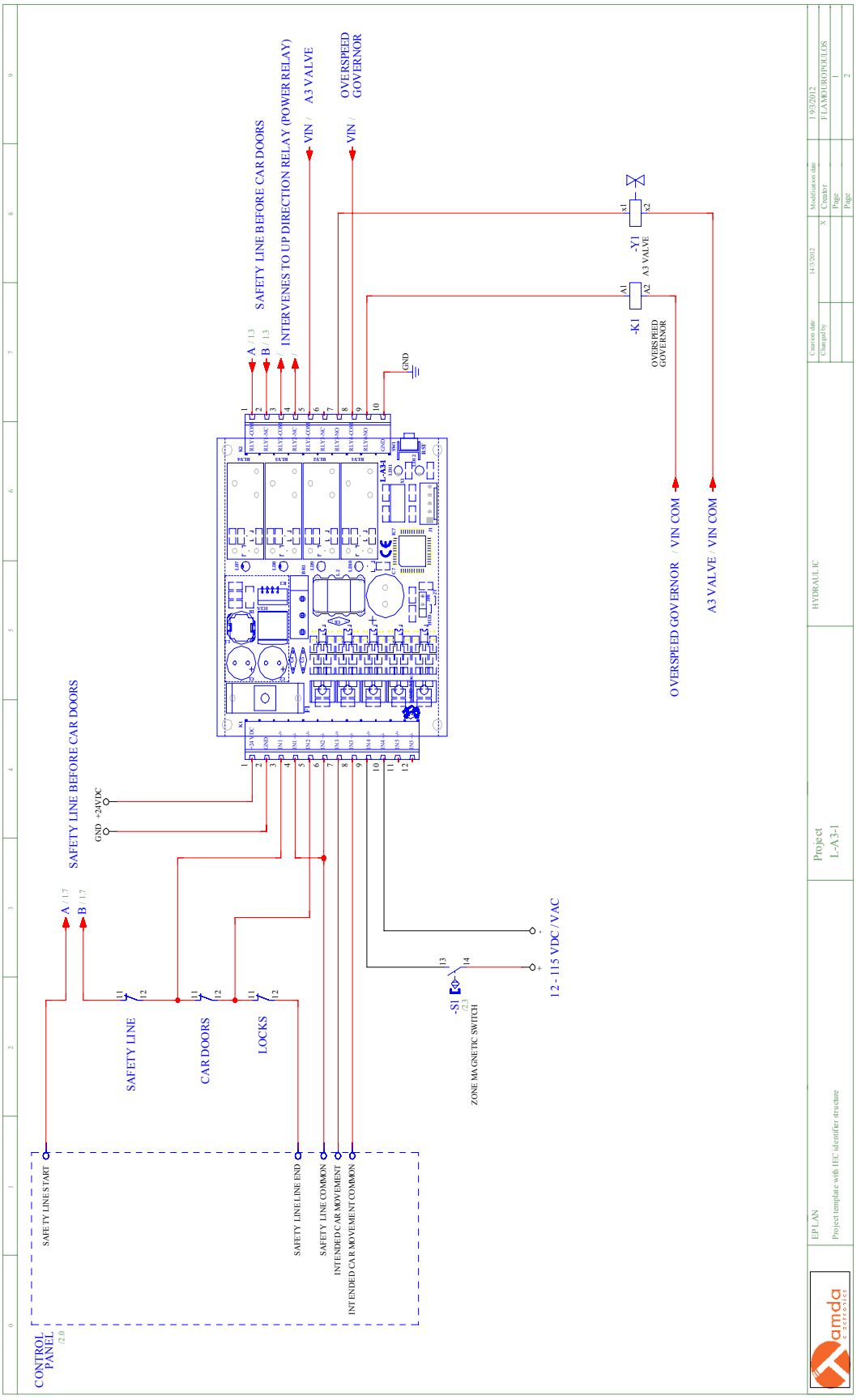


Figure 3

Tables – Figures Catalogue

Figure 1 6
Figure 2 8
Figure 3 9

Table 1 5
Table 2 6
Table 3 7
Table 4 7

Revision history

The revision dates and content of the revised manual appear on the following table.

Date of publication	Revision number	Revised content
March 2012	1	First edition

4, Riga Fereou Str.

XANTHI – GREECE

EL. & FAX +(30)25410 – 78852

www.lamdaelectronics.com

E-mail: info@lamdaelectronics.com